

# Method and Apparatus for a Pipeline Architecture

## ABSTRACT OF THE DISCLOSURE

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A method for efficiently processing layers of a data packet is provided. The method initiates with defining a pipeline of processors communicating with a distributed network and CPU of a host system. Then, a data packet from the distributed network is received into a first stage of the pipeline. Next, the data packet is processed to remove a header associated with the first stage. Then, the processed data packet is transmitted to a second stage. The operations of processing and transmitting the processed data packet are repeated for successive stages until a header associated with a final stage has been removed. Then, the data packet is transmitted to the CPU of the host system. It should be appreciated that the header is not necessarily transformed at each stage. For example, suitable processing that does not strip the header may be applied at each stage.

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